Claim 1 (Original): A shaping optical system for a laser bar layered product for shaping a laser beam from a laser bar layered product in which a plurality of laser bars, each of which is comprised of a plurality of semiconductor laser elements arrayed one-dimensionally, are layered along a direction which is perpendicular to both the array direction of said semiconductor laser elements and the laser beam traveling direction, comprising:

a refracting optical system,

a first laser beam group being at one side of a boundary line,

a second laser beam group being at the other side of the boundary line,

the boundary line being along said direction of layering,

said second laser beam group being relatively shifted together with respect to said first laser beam group along the direction of said layering; and

a transmission/reflecting optical system, which transmits and reflects said first and second laser beam groups so that said shifted first and second laser beam groups align along said direction of layering.

Claim 2 (Original): The shaping optical system for a laser bar layered product according to Claim 1, wherein said refracting optical system is comprised of plane parallel glass elements, of which a normal line exists in a plane including a traveling direction of at least one of said first and second laser beam groups and said direction of layering, and forms a predetermined angle with said traveling direction.

Claim 3 (Original): The shaping optical system for a laser bar layered product according to Claim 1, wherein said transmission/reflecting optical system further comprises a first reflecting element which reflects one of said first and second laser beam groups in a plane including said array direction and said traveling direction, and a second reflecting element to which the laser beam group reflected by said first reflecting element enters, wherein said second reflecting element is comprised of a reflecting area for reflecting one of said first and second laser beam groups and a transmission area for transmitting the other, which are alternately formed in stripes along said direction of layering.

Claim 4 (Original): The shaping optical system for a laser bar layered product according to Claim 3, wherein the length along said array direction of said transmission area is longer than the length along said array direction of the laser beam group which transmits the transmission area.

Claim 5 (Original): The shaping optical system for a laser bar layered product according to Claim 2, wherein said plane parallel glass element further comprises a first plane parallel glass plate which is used with a light transmission space, and is set such that one of said first and second laser beam groups which has a shorter optical path up to the emission position of said transmission/reflecting optical system transmits said first plane parallel glass plate, and the other which has a longer optical path transmits the light transmission space.

Claim 6 (Original): The shaping optical system for a laser bar layered product according to Claim 2, wherein said plane parallel glass element comprises a first plane parallel glass plate and a second plane parallel glass plate which is thicker than said first plane parallel glass plate, and is set such that one of said first and second laser beam groups which has a shorter optical path up to the emission position of said transmission/reflecting optical system transmits said second plane parallel glass plate, and the other which has a longer optical path transmits the first plane parallel glass plate.

Claim 7 (Original): The shaping optical system for a laser bar layered product according to Claim 6, wherein said first and second plane parallel glass plates are integrated.

Claim 8 (Original): The shaping optical system for a laser bar layered product according to Claim 1, wherein said refracting optical system is a prism which relatively shifts at least one of said first and second laser beam groups together, with respect to the other, only in said direction of layering.

Claim 9 (Original): A laser light source comprising the shaping optical system for a laser bar layered product according to Claim 1, arranged on laser beam groups emitted from said laser bar layered product.

Claim 10 (Canceled).

Claim 11 (Original): A shaping optical system for a laser bar layered product for shaping a laser beam from a laser bar layered product in which a plurality of laser bars, each of which is comprised of a plurality of semiconductor laser elements arrayed one-dimensionally, are layered along a direction which is perpendicular to both the array direction of said semiconductor laser elements and the laser beam traveling direction, comprising a optical member,

wherein a first laser beam group emitted from the laser bar layered product is at one side of a boundary line along said direction of layering, and a second laser beam group emitted from the laser bar layered product is on the other side of the boundary line,

wherein said optical member comprises a glass plate having parallel surfaces, one of said surfaces having stripe reflection films thereon, and the other of said surfaces having a partial reflection film thereon so that the second laser beam group travels along the layering direction relative to the first laser beam group, thereby first and second laser beam groups are emitted from the remaining region of the other surface.

Claim 12 (Original): A shaping optical system for a laser bar layered product for dividing and aligning laser beams from said product, said system comprising an optical member,

wherein said optical member comprises a glass plate having parallel surfaces, one of said surfaces having stripe reflection films thereon, and the other of said surfaces having a partial reflection film thereon,

wherein $lx + my + nz = 0$ is the equation of said one of the surfaces, and $lx + my + nz=D$ is the equation of the other of said surfaces when x, y, z orthogonal coordinate system is applied, and

wherein said optical member satisfies following expression:

$$Y1 \geq Y = \frac{2nmD(\beta - 1)}{(n + E)}$$

$$E = \sqrt{n^{*2} - 1 + n^2} - n$$

$$\gamma = \arccos \frac{-ml}{\sqrt{m^2 + n^2}\sqrt{l^2 + n^2}}$$

where,

Y1: the distance perpendicular to both of the longitudinal direction and the thickness direction of one reflection film of the stripe reflection films,

γ: the angle between the longitudinal direction of one reflection film of the stripe reflection films and the boundary line between the partial reflection film and the remaining region,

D: the thickness of the glass plate,

n*: the refractive index of the parallel glass plate,

β: the number of laser beams divided, the beam being emitted from one laser bar,

x: longitudinal direction of one of said laser bars,

y: layering direction of said laser bars, and

z: propagating direction of laser beam emitted form one of said the laser bars.

Claim 13 (Original): An optical member comprises a glass plate having parallel surfaces, one of said surfaces having stripe reflection films thereon, and the other of said surfaces having a reflection film thereon,

wherein lx + my + nz = 0 is the equation of said one of the surfaces, and lx + my + nz = D is the equation of the other of said surfaces when x, y, z orthogonal coordinate system is applied, and

wherein said optical member satisfies following expression:

$$\beta = \frac{Y1}{Y2} + 1$$

$$Y1 \geq Y = \frac{2nmD(\beta - 1)}{(n + E)}$$

$$E = \sqrt{n^{*2} - 1 + n^2} - n$$

$$\gamma = \arccos \frac{-ml}{\sqrt{m^2 + n^2}\sqrt{l^2 + n^2}}$$

where,

Y1: the distance perpendicular to both of the longitudinal direction and the thickness direction of one reflection film of the stripe reflection films,

Y2: the distance between the films of the stripe reflection films.

γ: the angle between the longitudinal direction of one reflection film of the stripe reflection films and the boundary line between the reflection film and the remaining region,

D: the thickness of the glass plate, and

n*: the refractive index of the parallel glass plate.